



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,501	07/29/2003	Horace P. Halling	03-150	6768

25306 7590 01/27/2005

LAW OFFICES OF RAYMOND A. NUZZO, LLC  
579 THOMPSON AVENUE  
EAST HAVEN, CT 06512

EXAMINER

PATEL, VISHAL A

ART UNIT	PAPER NUMBER
----------	--------------

3676

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,501

Applicant(s)

HALLING, HORACE P.

Examiner

Vishal Patel

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10-11, 17-18, 23-24 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations in claim 10 that “the second portion curling in a first direction” and the limitations in claim 11 that “the portion of the first end portion having the first distal end is slightly angulated in the first direction” is not correct since both ends are angulated towards each other (meaning each end is angulated or curled in different directions). This type of reasoning applies to claims 17-18, 23-24 and 30.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Bedford (US. 6,086,069).

Bedford discloses an annular seal member (seal of figure 3) having a generally j shaped cross-section and comprising a first end portion having a first distal end (end near 76), a generally curled second end portion (end portion near 78) that extends to a second distal end, and

Art Unit: 3676

a central body portion (portion between 76 and 78) between and contiguous with the first and the second end portions, the annular sealing member having a first side (first side opposite 70) and an opposite second side (where the surface 70 is located), the second end portion curling in a first direction in accordance with a predetermined radius such that the second distal end is located across from the first side of the seal member (the second distal end is located across the first surface) and the first and second distal ends do not face each other.

5. Claims 10-15, 17-21 and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Halling et al. (US. 6,257,594).

Halling discloses an annular seal member (seal of figure 4a) having a generally j shaped cross-section and comprising a first end portion having a first distal end (end S1), a generally curled second end portion (end portion 55) that extends to a second distal end, and a central body portion (portion between first and second ends) between and contiguous with the first and the second end portions, the annular sealing member having a first side (first side opposite of surface 53) and an opposite second side (where the surface 53 is located), the second end portion curling in a first direction in accordance with a predetermined radius such that the second distal end is located across from the first side of the seal member (the second distal end is located across the first surface) and the first and second distal ends do not face each other.

The portion of the first end portion having the first distal end is slightly angulated in the first direction (both ends are angulated toward each other).

The central body portion has a generally frustro-conical shape and has no inflection points (this is the case since the surface contacting and near 59 is angulated and is annular). The annular seal member is metallic. The annular seal is fabricated from a metal chosen from the

Art Unit: 3676

group consisting of nickel super alloys and nickel cobalt alloys (column 4, lines 40-45). The annular seal member has a degree of resiliency.

The annular seal member having the body portion is frustro-conical and has opposite ends. The first end portion is connected to one of the opposite ends (S1 is attached to one end of 51) and the second end portion contiguous with the other of the opposite ends (the second end 55 connected to 51).

The annular seal member has a generally hook shape cross-section (cross-section of seal in figure 4a).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 16, 22 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halling in view of Spence et al (US 2003/0107188 A1).

Halling discloses the invention substantially as claimed above but fails to disclose that the thickness of the longitudinally extending portion decreases toward the end thereof. Spence discloses a metallic seal having two ends, the ends having curves, the thickness of the seal is varied (paragraph 033). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the end of the longitudinally extending portion to have decreased thickness as taught by Spence to provide a specific load on the seal or stiffness for the seal (paragraph 033, lines 1-12).

Art Unit: 3676

***Response to Arguments***

2. Applicant's arguments with respect to claims 10-30 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (703) 308-2978.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Art Unit: 3676

**or faxed to:** 703-872-9326, for formal communications for entry before Final action: or,  
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive,  
Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP

January 18, 2005

A handwritten signature in black ink, appearing to be 'H. Shackelford', written over a horizontal line.

Heather Shackelford  
Supervisory Patent Examiner  
Tech. Center 3600